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Environmental Protection Agency
Office of Transportation and Air Quality
National Vehicle and Fuel Emissions Laboratory
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Combustion Analysis System (CAS) Start-Up Procedure

This procedure is written for the Environmental Protection Agency, National Vehicle and Fuel Emissions Laboratory (NVFEL) internal use. The use of specific brand names by NVFEL in this procedure are for reference only and are not an endorsement of those products. This document may be used for guidance by other laboratories.

NVFEL Reference Number

025

Implementation Approval

Original Procedure Authorized by EPCN #258 on 06-20-2002

Revision Description

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1. Purpose

The purpose of this procedure is to document the needed steps to start the Combustion Analysis System (CAS) in any of the test sites where the system is installed.

2. Procedure

101 Assuming the engine is already running, double-click the “ADAPT CAS 2.2.1” icon.

NOTE: The icon appears in different versions in different sites.

102 The Dialog box which appears, asks whether you want to restore the last file; reply “yes” by clicking on the yes button.

103 The last file appears on the “AdaptCAS” screen. Click on the “Connect” button, located to the right of the question mark “?” button. See red arrow in Figure 1.



Figure 1
“Connect” button on “AdaptCAS” screen

104 The “Connect to RTP” screen appears with the systems that are up listed on it. Select and highlight “CAS Hardware”.

105 Click on the “Connect” button.

106 Highlight the “Data” button and on its pull-down menu select “Save Data Set-Up”.

- 107 When the “Log Options” screen appears in the active window, in the “Data Files Storage Path” dialog box, change the test number to reflect the new test number you intend to use. See Figure 2, Arrow 1.

After the test number, enter “.cas.” and the mode number at the end of the “Data File Storage Path”. See Figure 2, Arrow 2. The mode number represents the number of times the engine has been tested using this test number.

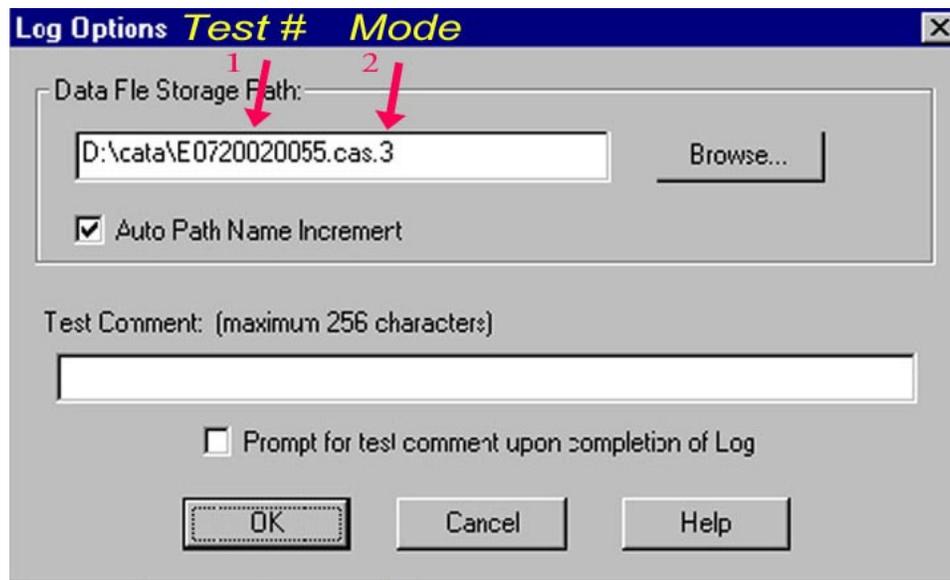


Figure 2

“Test #” and “Mode #” in the “Data File Storage Path” window

- 108 Click “OK” on the “Log Options” screen.
- 109 The “AdaptCAS” screen appears with information whether the file exists or not. Click on “Yes” or “No”, appropriately.
- 110 If engine is not running, launch engine to complete the remaining steps.
- 111 On the “MTS” screen click on the “Chg Amp Reset” button.
- 112 The button will appear as “Chg Amp Operate”, with a bright green background.
- 113 The system will now show readings on the “AdaptCAS” screen.

3. Acceptance Criteria

Successful start-up of the CAS is the sole acceptance criterion.